

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/051984

International filing date (day/month/year)
01.09.2004

Priority date (day/month/year)
28.11.2003

International Patent Classification (IPC) or both national classification and IPC
H04B7/005, H04Q7/36

Applicant
MOTOROLA INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**International application No.
PCT/EP2004/051984

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. ☐ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

4. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|----------------|
| Novelty (N) | Yes: Claims | 3-7,8-11,14-16 |
| | No: Claims | 1-2,12-13 |
| Inventive step (IS) | Yes: Claims | 8,10-11,15 |
| | No: Claims | 1-7,9,12-14,16 |
| Industrial applicability (IA) | Yes: Claims | 1-16 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

1. Reference is made to the following documents:

D1: US-A-6094585
D2: EP-A-1280285
D3: WO03-A-096571
D4: US-B-6577880

2. The document D1, which is considered to be the closest prior art, discloses a cell divided into a plurality of sectors comprising the following steps and features set out in claims **1** and **13**:

- generating downlink power information for a multi-sector base transceiver site in which power can be shared between the sectors (see col.1, lines 28-39),
- gathering downlink power information for each sector (see Fig. 3-4 and col.3, lines 48-58 and col.5, lines 1-13),
- modifying the gathered downlink power information (see Fig. 3-4 and col.3, lines 58-66 and col.5, lines 13-15),
- forwarding the modified downlink power information to a radio resource manager controlling the multi-sector base transceiver site (see Fig. 3-4 and col.3, line 67 to col.4, line 7 and col.5, lines 15-25).

Thus, the subject-matter of claims **1** and **13** is not novel (Article 33(2) PCT).

3. Moreover, an inventive step objection appears to be possible with regard to D2 and the knowledge of the skilled person.

The document D2 discloses a cell divided into a plurality of sectors comprising the following steps and features set out in claims **1** and **13**:

- a multi-sector base transceiver site in which power can be shared between the sectors (see Fig.2 and Pg.2, col.2, lines 49-58),
- gathering downlink power information for each sector (see Fig.1 and Pg.3, col.4, line

52 to col.5, line 3)

- modifying the gathered downlink power information (see Pg.4, col.6, line 52 to col.7, line 20).

Claim 1 further defines:

- forwarding the modified downlink power information to a radio resource manager controlling the multi-sector base transceiver site.

However, forwarding power measurements from a base station to a radio resource manager in order to perform power allocation is a common practice in third generation wireless communications, see for example D3 (abstract and Fig.5 and Fig.7 and Pg.4, line 6 to Pg.6, line 19) or D4 (Fig.7 and col.9, lines 25-65 and col.12, line 38 to col.14, line 29 and.

Thus, the present application does not meet the requirements of Article 33(3) PCT because the subject-matter of claims 1 and 13 does not involve an inventive step.

4. D1 (see Fig.4) also discloses all the features of claim 12.
5. The following dependent claims do not appear to contain any additional features which, in combination with the features of **claims 1 or 13** to which they refer, could form subject matter which meets the requirements in respect of novelty (Article 33(2) PCT) or inventive step (Article 33(3) PCT), the reasons being as follows:

Claims 2 and 3: the additional features are already known from D1 (see col.5, lines 1-20) and D2 (see Pg.5, col.7, lines 9-17).

Claims 4 and 5: the additional features are already known from D2 (see Pg.5, col.7, lines 17-33).

Claims 6, 14 and 16: Routine option.

Claim 7: the additional features are already known from D2 (see Pg.5, col.7, paragraph 18).

Claim 9: the additional features are already known from D2 (see Pg.4, col.5, lines 8-27).

Re Item VIII. Certain observations on the international application

The following claims do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined, the reasons being as follows:

a) Claim 1:

The meaning of the sentence "downlink power information for each sector" in claim 1 is ambiguous in relation to the information stated in the description (see Pg.5, lines 10-12 and Pg.6, line 18 to Pg.7, line 10) because "downlink power information" has a different specific meaning for the person skilled in the power control field, rendering therefore the scope of the claim unclear. Thus, for the purpose of examination, it is assumed that this sentence should actually read "**downlink transmission power required** for each sector".

b) Claim 12:

Product claim 10 is not clear, because the claim refers back also to method claims 1-11.

Re Item VII. Certain defects in the international application

1. Independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT.
2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
3. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in documents D1 to D4 is not mentioned in the description, nor are these documents identified therein.